



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 10/091,126 | 03/04/2002 | William Kirby Smith | 13515.2USII | 5135 |
| 23552 | 7590 | 07/13/2004 | EXAMINER | |
| MERCHANT & GOULD PC P.O. BOX 2903 MINNEAPOLIS, MN 55402-0903 | | | CHAMBERS, TROY | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 3641 | |

DATE MAILED: 07/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/091,126

Applicant(s)

SMITH ET AL.

Examiner

Troy Chambers

Art Unit

3641

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 17-24 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 17-24 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a) because they fail to show the internal operations of the various elements such as the canister and hopper described in the specification. For example, the applicant does not show the how the ball gets from the hopper to the canister or how the canister is supplied with compressed air to propel the tennis ball-sized or baseball-sized projectile. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Corrected drawing sheets are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 17-24 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Specifically, claim 17 requires an apparatus "capable of propelling a tennis ball-sized or baseball-sized projectile at a speed of at least 90mph." The Examiner notes that this limitation refers only to the size of the object rather than the object itself. So, this claim could conceivably cover tennis ball-sized (about 3 inches in diameter) projectiles made of lead. A 3-inch diameter ball of lead weighs about 5.7982 lbs. Lets say we wanted this ball to achieve a velocity of 90 mph (132 ft/s) in about 1 second. Since $Force = m \cdot a$ ($m=5.7982$ lbs/g and $a= 132$ ft/s/s) $F= 765$ lbs. Applicant's specification does not disclose a pneumatic propulsion apparatus capable of generating a propulsion force of 765 lbs.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over over either one of 4207857 (" '857") or 4372283 (" '283"), both issued to Balka. Balka discloses a pneumatic projectile propulsion apparatus, comprising: a pressure canister 12; an exit tube 24 connected to said pressure canister; a hopper 14; and a covered blower 140 ('857), col. 2, ll. 37-48 ('283).

3. With respect to claim 17, Balka discloses two pneumatic devices as described above. However, Balka does not disclose a blower that draws less than 15 amps nor is the speed of the projectile disclosed. However, neither limitation is inventive.

Regarding the amperage of the blower, both of the blowers disclosed by Balka are powered by electricity via an electrical cord 18. The voltage output of any outlet for any country is standard (e.g. 120 volts in the U.S.). So it is only a matter of varying the resistance to obtain the desired amperage. This objective can be achieved merely by choosing among the many blower models available each having various output characteristics including different amperage outputs.

Regarding the speed of the projectile, such a limitation would be obvious to and within the capabilities of one with ordinary skill in the art. For example, the determination of propulsion speed for a pneumatic propulsion device is similar to that of a firearm. If an individual wishes a bullet to travel further or faster, he or she can adjust the size of the cartridge (grain) or extend the length of the barrel. Similarly, for a pneumatically propelled device, it would be a simple matter of supplying a larger pneumatic projectile force (i.e. larger compressor/blower) or changing the size of the projectile or barrel. Indeed, applicant's own specification supports this position (pg. 4).

Art Unit: 3641

Claims 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over either one of ('857) or ('283) in view of either one of U.S. 3930486 issued to Kahelin (" '486") or U.S. 4137893 issued to Beauchamp (" '893). Both of '857 and '283 have been described above. But, both '857 and '283 differ from the claimed device in that the covered blower is located in positions other than that disclosed by Balka (i.e. in the canister). However, the location of the compressor or blower outside of the pressure canister is well known in the art. For example, both of '486 and '893 discloses compressors located outside of the pressurized canisters. At the time of the invention, one of ordinary skill in the art would have found it obvious to locate the covered blowers in the positions claimed by the applicant. The suggestion/motivation for doing so would have been to have easy access to the blower for repair/maintenance purposes without having to access the pressurized canister.

Response to Arguments

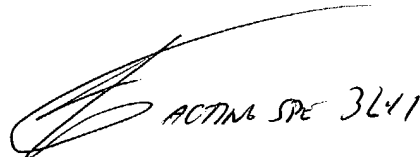
3. Applicant's arguments filed 02/13/2004 have been fully considered but they are not persuasive. The reasons for rejecting the claimed subject matter requiring a blower that draws less than 15 amps of current is as described above. With regards to the required speed of the projectile, it has been held that claims having limitations directed to intended or desired use do not serve to patentably distinguish the claimed structure over that of the reference. See *In re Person*, 181 USPQ 641; *In re Yanush*, 177 USPQ 705; *In re Finsterwalder*, 168 USPQ 530; *In re Casey*, 512 USPQ 235; *In re Otto*, 136 USPQ 458; *Ex parte Masham*, 2USPQ 2nd 1647.

Art Unit: 3641

Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Troy Chambers whose telephone number is (703) 308-5870. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael J. Carone, can be reached at (703) 306-4198.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-4177. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

 ACTING SPE 3641